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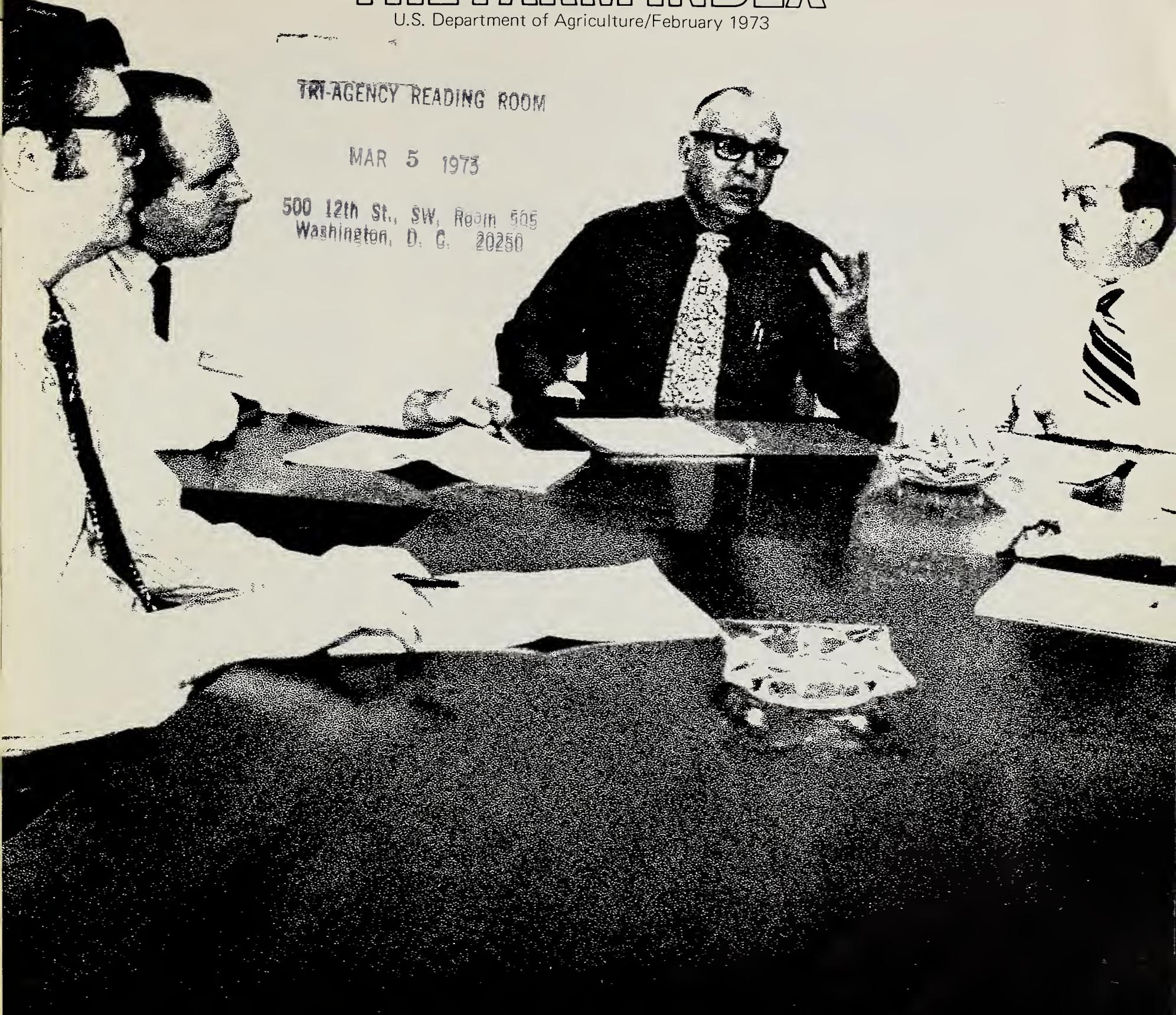
THE FARM INDEX

U.S. Department of Agriculture/February 1973

TRI-AGENCY READING ROOM

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LOOKING
IN ON
THE
OUTLOOK
BOARD

Outlook

After living low on the hog in late 1970 and early 1971, hog producers reacted to the profit pinch by farrowing fewer sows. Market prices reacted true to form. By the start of this year, prices for barrows and gilts at seven markets had rebounded to \$30/cwt., nearly double the quotations of late 1970.

As prices strengthened, hog farmers decided to increase their farrowings—by 2 percent in the fall of 1972 and by 6 percent in the December 1972-May 1973 period.

Translated into hog slaughter, this spells a small increase in next spring's slaughter compared to a year ago. But the rise in slaughter in second half '73 could be fairly steep . . . assuming the spring pig crop expands 7 percent from the '72 period when allowing for the uptrend in pigs per litter.

On prices, ERS livestock people expect "substantially higher" quotations in the first half of '73 than the January-June '72 average of \$24.75/cwt. Prices in second half '73: weaker than a year ago, averaging less than the \$29/cwt. of July-December 1972.

All in all, the 1973 market situation looks a lot like that in 1970. Hog prices peaked early in the year, then backed off during the rest of the year with a short-lived rally in June and July.

The 1973 wheat program under changes announced by USDA in January carries the fewest restrictions on plantings since the 1950's. The big change was to drop the requirement whereby program participants must "set aside," or retire from crop production, an acreage equal to 86 percent of their domestic allotment to grow wheat. However, farmers who elect to participate in the voluntary set-aside program will still have to comply with the mandatory set-aside.

With the national wheat allotment set at 18.7 million acres for 1973, the elimination of mandatory set-aside will free nearly 15 million acres for crop production or other uses. Any additional wheat acreage would be spring wheat varieties, since the 1973 winter wheat crop is already in the ground.

The set-aside acreage may also be used for livestock grazing throughout the year. In the past, grazing was not permitted during the 5 principal

months of the normal growing season.

The Department removed the mandatory set-aside provisions in response to a quickening in worldwide wheat demand since last July and the announcement of the 1973 wheat program. Much of Asia, as well as other countries, has suffered crop failures or reductions in the grain harvest.

For U.S. farmers, the overall effect of dropping the set-aside could be added market income, the Department said.

Re broiler prices, the word from ERS is we can expect higher-than-1972 levels throughout much of the new year. Towards the end of '73, however, prices should ease somewhat with a pickup in summer chick placements.

Reminder

The National Agricultural Outlook Conference takes place February 20-22 in the Jefferson Auditorium, USDA, Washington, D.C.

This year's conference, the 51st, will put special emphasis on the long-range prospects for U.S. agriculture . . . the production, marketing, and trade outlook for the 1980's.

Agriculture's future structure will get top billing on February 21, but the theme will run through the other sessions as well.

As in the past, talks and papers will be presented on family living—this year centering around "national issues influencing quality of life."

Curtain time: 8:45 a.m., February 20. ERS Administrator Quentin M. West will give the welcoming address, followed by—Mrs. Marina Whitman, Council of Economic Advisors, giving the outlook for the economy; commenting on the general outlook, Saul B. Klaman of the National Association of Mutual Savings Banks; C. Kyle Randall of ERS, on the agricultural outlook; Raymond A. Ioanes, Administrator of the Foreign Agricultural Service, on prospects for our farm trade; and remarks by Secretary of Agriculture Earl L. Butz.

Later sessions will include talks by Don Paarlberg, Director of Agricultural Economics, and Carroll G. Brunthaver, Assistant Secretary.

Taking first quarter '73 as a whole, broilers will be about as plentiful as a year earlier. But wholesale prices will be shored up by rising costs of feed combined with strong consumer demand for meats.

In late winter or early spring there will be a temporary dip in broiler production. Chick placements went down in late '72, and these birds should reach the market sometime in March.

The winter wheat crop for 1973 harvest, based on December indications, will smash the old record set in 1968. Estimated at 1,278 million bushels, production will top the '68 figure by 5 percent. The December crop report placed sowings at 42.8 million acres for '73 harvest, 1 percent over last year. Yield per seeded acre is expected to reach 29.9 bushels, a slight improvement from '72 but under the record of '71.

Production of hard red winter wheat, also a new high, should be sharply above the increase anticipated for all winter wheat. Outlook for white winter wheat is for a crop about the same as a year earlier, whereas soft red winter wheat is estimated smaller.

Another record for net farm income in '73? Probably not. But it could well be the second biggest—exceeded only by the \$19 billion-plus our farmers netted last year.

Farm prices. They'll stay on the high side, according to preliminary estimates. That will particularly pertain to first half '73. Thereafter, prices may average near the year-earlier levels.

Marketing receipts. Overall gain may approximate \$3 billion, mostly from livestock sales. Livestock marketings will be noticeably larger than a year ago—especially after mid-year—as hog supplies expand. Crop marketings will reflect the record 1972/73 production, decisions affecting farm programs, and export developments in 1973/74. However, in contrast to 1972 when Government payments rose sharply, this year's payments will be lower.

Total use of U.S. cotton will creep higher in 1972/73, thanks to good prospects for exports. The January estimate of the 1972 crop was 13.6 million bales

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(480 pounds each) or 29 percent more than 1971's production. Adding to this the beginning stocks of 3.4 million bales gives a total supply of 17 million. The export market is expected to take around 4 million bales—up from 3½ million in 1971/72.

In contrast, domestic demand for cotton shows signs of slackening. Last season's high cotton prices and tight supplies have caused textile mills to cut back on cotton and to use more man-made fibers. Thus some slippage can be expected in mill use of cotton from last year's 8.2 million bales.

Gross receipts from dairying will float upward this year, but feed costs will consume a fair-sized bite from the fatter gross. Milk prices, more than marketings, will lift receipts. In 1972 both prices and bigger milk sales contributed to the recordbreaking \$7.2 billion in gross income from dairying.

Even with price supports at the minimum—75 percent of parity—and with no change in Federal order programs, prices received by dairy farmers could top last year's average (\$6.09/cwt.) by 4-5 percent—the same increase projected for gross income.

ERS expects milk production will slip this year, though the decrease from 1972's 120½ billion pounds would be quite small. It would come from a likely drop in production per cow, reflecting slimmer feed supplies and possibly of poorer quality; and from a faster decline in milk cow numbers than in 1972.

On the demand side, cheese sales will continue to gain among manufactured dairy products, though the growth rate could trail 1972's. Consumer buying of fluid milk may increase less than last year. Prospects for other dairy products are mixed.

Overall retail prices for dairy foods will move higher—probably to exceed the 1972 advance of 1.2 percent.

What's it cost to live on a farm? To find out, USDA this April will begin a nationwide survey of the dollars spent and purchases made by farm people for family living needs. Results will update the prices paid index, a barometer of how farmers are doing compared with others.

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NOTE: The numbers in parentheses at the end of stories are intended for readers who wish to write us for additional information. See page 22 for details.

LOOKING IN ON THE OUTLOOK BOARD



What's the agricultural picture? ERS puts out 84 "situation" reports a year on major commodities and other subjects of interest to farmers. Here's how it's done.

When you read or hear that a tight supply of wheat is expected . . . or that the cost of a market basket of farm-raised foods has changed such-and-such a percent . . . or that soybean producers are embarking on another banner year, chances are it emanated from a

small, windowless conference room in the Washington headquarters of USDA's Economic Research Service.

There, the Outlook and Situation Board meets on the average of seven times a month. Mission: to review, approve, and release the latest "situation" report, one of 84 published during the year.

Gathered around the T-shaped table are the Department's most knowledgeable men on the report involved.

And if anyone looks a little nervous in the shirt-sleeve meeting, it's

likely to be the author, especially if he's new. Every page of his draft will be gone over thoroughly as the board strives for accuracy, clarity, and consistency.

Faces experts. A Foreign Agricultural Service representative may challenge a sentence about wheat export prospects. A Statistical Reporting Service man may question the references to harvested acreage. The board chairman may point out that a statement is inconsistent with one made in another situation report approved earlier in the week.

The point must be settled then and there because at the conclusion of the meeting, the report's contents become public information.

The board chairman keeps the meeting moving at a steady clip: "Other comments on Page 8? Page 9. We need some different language here. . . ."

Two "regulars." He and the board secretary sit in on all the meetings. Other board members are chosen by their agencies to attend sessions on subjects in which they specialize.

Board members receive a draft copy of the report a few days before the meeting and usually have any suggested changes ready to go. If they have any major objections they'll usually call the board chairman or author and work them out before the meeting.

All in all, the standard Government clock on the wall generally ticks off little more than an hour before the board is through.

Security sessions. But because the outlook information in some reports could affect the commodities market, some of the board meetings remain in session—and no one leaves—until the market closes.

This is about the only time you'll hear a superfluous sentence at a board meeting. Even then, discussion often is such shop talk as the outlook for crops around the country.

Just as soon as the meeting is over, a phone call is placed to USDA's Office of Information and a summary of the meeting given out to the press.

The summary is the first thing

that the board clears when the meeting starts. It is prepared while the meeting is still going on and transmitted to the Office of Information two blocks away for issuance when the board meeting is over. Upon release of the summary, all information contained in the report becomes public. Board members are now free to discuss anything in the report with the press.

It will be another week before the complete report, usually 20 to 40 pages, is published. Meantime, the author is overseeing the work of getting the report into print.

The situation reports cover 22 separate subjects, and each subject area has at least one permanent, principal contributor assigned to it.

As experts in their subject matter and professional agricultural economists, the principal contributors first develop the outlook and draft the analytical commentary. Then they see that necessary statistics are kept up to date . . . that special features are written . . . and that everything adheres closely to the rigid time schedule that the Outlook and Situation Board announces early in the year.

Miss a meeting? It's just about a must that the principal contributor attend the board meeting, and that the meeting convene on schedule. However, there are rare exceptions. Once, an author was called for emergency duty by the Reserves at board time. Once, a freeze hit Florida's citrus groves just before a January board meeting of the *Fruit Situation*, and the meeting was postponed while new figures—and a whole new outlook—were put together.

Normally, getting out a situation report goes something like this: the economist-author produces a draft of his outlook analysis and gets the summary, situation, and statistical material together a week or 10 days before the board meeting.

Up for review. It is then sent for review within the ERS division in which it originates and to the chairman and secretary of the board. After their comments are received, a revised draft is sent out to all the

board members. They have 2 days to review it before coming to the board meeting.

That's when most of the arguments take place, if there are going to be any.

"I know I certainly appreciate it if they call me up before the meeting so we can iron it out," comments one author. "It takes off the pressure of trying to do any major changes with the whole board waiting."

Unwritten rule. At the board meeting itself, there is one thing understood: no one enters with just negative criticism.

Outlook Output

Want to know whether cotton use will change? What the livestock supply and demand situation is? What kind of credit picture looms ahead for farmers?

The answers can all be found in ERS's situation reports.

There's a flurry of such reports in February, the month of USDA's annual Outlook Conference. Sixteen are published then by the ERS Outlook and Situation Board, which also sets the agenda for the conference.

The reports—most of which are issued quarterly—contain the latest situation and outlook information on all major commodities plus a number of topics of general interest to the farming community. These 22 separate publications are:

Agricultural Finance Outlook, Agricultural Outlook Digest (a monthly digest of situation reports), *Cotton Situation, Dairy Situation, Demand and Price Situation;*

Farm Cost Situation, Farm Income Situation, Farm Real Estate Market Developments, Fats and Oils Situation, Feed Situation, Fertilizer Situation, Fruit Situation, Livestock and Meat Situation;

Marketing and Transportation Situation, National Food Situation (where all per capita consumption figures originate), *Poultry and Egg Situation, Rice Situation, Tobacco Situation, Vegetable Situation, Wheat Situation, Wool Situation, and World Agricultural Situation.* (2)

"If you don't like something," one author explains, "you're expected to defend your objection and offer constructive criticism—tell what isn't right about it."

Perhaps because of this unwritten rule, the board gets a lot done in a relatively short time.

Someone may say, "On Line 17, we need some new wording. I see it this way. . . ." Sometimes the board accepts it, sometimes not. But the trouble spot is pinpointed and defined and it doesn't take long to hurdle it.

Timely info. It is the authors' and board members' expertise that makes the board what it is—a fast-acting medium to get out the most useful outlook and situation information possible to the farmer while it is still timely.

In the chairman's words, the board aims for accuracy . . . for consistency . . . and "to say clearly what they intend to say."

The principal objective of outlook work is the same as 50 years ago. It is to get out accurate facts and appraisals of the farmers' economic prospects so that he can "plan and carry out his production and marketing activities in an efficient and profitable way."

Much is indirect. The situation reports do this directly, but probably to a greater extent, they do it indirectly. They are used by the news media in making farm reports. And they are used by State outlook specialists who adapt them to conditions in their particular States.

They are designed ultimately to:

- provide information that will be useful to farmers in production and marketing;

- provide information about the supply and demand situation so that people in the business of processing and marketing farm products can use it in their planning and operations.

- provide information to people who deal with farmers—such as suppliers of fertilizer, feed, and credit—and to commodity investors. (1)

[Third in a series.]

The old style of reporting farm income may one day be replaced by accrual accounting. When it comes, it would have mixed consequences for America's farmers.

One of the surest ways to clip the wings of the tax-loss farmer is to require farmers to report income by the accrual accounting method.

That's not likely to come to pass in the near future, though there is this possibility: that more and more farmers will switch to accrual of their own accord as the rules for cash accounting become more and more restrictive.

In a new ERS study of cash and accrual accounting, the analyst points out many lawmakers in the past have favored the cash method over accrual. He believes they recognized the accrual method to be an "appropriate means of accurately reporting farm transactions . . . but that it should not, as yet, be required of all farmers."

This was apparent when the Congress took up tax-loss farming proposals to be incorporated into the Tax Reform Act of 1969. For various reasons legislators did not push for complete withdrawal of the cash accounting option. They did, on the other hand, agree on certain provisions which encourage the use of accrual accounting.

Millions use cash. Future changes in the cash accounting system would affect millions of farmers. Over 95 percent of them exercise their legal right to report farm income by the cash method rather than the accrual.

As explained in the ERS study, many farmers prefer cash accounting because they don't have to keep complicated records of inventory changes.

Cash accounting also offers a big advantage for the farmer who's expanding his operation yet trying to maintain an adequate income. Since he doesn't have to pay annual taxes on inventory increases, his tax obligations can be postponed, and this frees cash to invest in the farming operation.

FARMERS HAD TO USE ACCRUAL ACCOUNTING

Cash accounting compared to accrual also allows greater flexibility in adjusting net income from year to year. Too, sales of raised breeding livestock may sometimes result in lower taxation than under the accrual system.

The basic difference between cash and accrual accounting has to do with the handling of expenses and

receipts from the business.

Suppose a farmer takes delivery of \$500 worth of feed on December 15 and charges the purchase. He's billed for it in January and pays it then.

Under the cash method, the feed outlay is considered a farm expense in January. *Under accrual*, the \$500 is a cost deduction in December when the farmer incurred the obliga-

tion to pay. However, he must report the value of feed on hand on December 31 as part of his ending inventory.

Example of handling receipts:

A farmer raises and feeds livestock during the year but doesn't sell any.

Under cash accounting, he has no income until payment for the livestock is actually received. *Under accrual*, he has income—the increase in the value of livestock and crops on hand at the end of the year compared to the value at the beginning.

Farmers get a break. Farmers have been privileged to use either method since 1915. The administrative ruling of that year was designed to spare them onerous bookkeeping chores. Most other businessmen were given no choice but to use the accrual system.

What was not anticipated was that some "farmers" would use cash accounting to avoid taxes on their nonfarm income. Year after year they would claim large farm losses which could be legally used to offset other taxable income. Then when they sold out, they benefited again by receiving capital gains treatment on certain items, which are taxed at a lower rate than ordinary income. Under the accrual method, they would have lost some of the favorable treatment otherwise given capital assets.

Tighter rules. Better known as tax-loss farming, this abuse of special tax rules for farmers led to several provisions in the Tax Reform Act of 1969. One of these requires people with large nonfarm incomes and large farm losses to keep an "excess deductions account," which in essence raises the taxes on the sale of capital assets.

However, the Act says taxpayers can be exempt from keeping the excess deductions account if they report farm income on the accrual basis.

Like cash accounting, accrual accounting offers advantages to some farmers.

For example, farmers who must

sell 2 years of production in a single year can, for tax purposes, spread out their income by virtue of the inventory feature.

Other farmers may wish to keep income and taxes on a more current basis than cash accounting allows. This particularly applies in years when deductible expenses exceed the receipts and there is little off-farm income against which this loss can be offset.

Total tax liability may be less than under cash accounting when tax rates or cash income go up, or when inventories decline. This is because property accumulated may have already been reported as income and taxed in prior years as per the inventory feature.

Added benefits. Another advantage is the likelihood of increased Social Security benefits. Certain capital gains are excluded from self-employment income. Since, under accrual accounting, more of the value of livestock may be treated as ordinary

income, accrual farmers may have higher yearly self-employment income and thus qualify for greater Social Security benefits.

To sum up, under certain circumstances some farmers would be better off using the accrual system while others would not.

Those considering a switch to accrual should keep in mind they might have to pay higher taxes for the year the change is made. Under current law, income for that year would include all previously untaxed farm wealth (not including appreciation in real estate). For instance, adjustments would have to be made if a farmer had a beginning inventory of unsold livestock on which he'd already claimed expense deductions. This income and tax obligation, however, may be spread over a 10-year period.

Farmers could also ease the tax burden by changing to accrual in a year when tax rates are low, inventories are low, or tax exemptions are high.

Where a farmer knows in advance he will sell a large part of his accumulated inventory, he might choose that year for the changeover. His tax liability would be high anyway, but his closing inventory would be low. (3)

North Central Farmers Widen Weed Control

Farmers in the North Central States have stepped up their war on weeds.

ERS researchers found herbicide use had risen substantially during 1966-72 in a 13-State region encompassing the Corn Belt, Lake States, and Great Plains. Data were supplied by some 1,250 corn producers and 750 soybean growers.

Between 1966 and 1972, the share of total corn acreage treated with herbicides advanced from 63 to 81 percent—an annual gain of 3 percent. Changes varied widely among States. For example, South Dakota farmers applied herbicides to 53 percent of their corn acreage last year

Losers

Taking nonfarm businesses as a group, net profits outweigh losses at all income levels. Not so in farming.

A look at individual tax returns for 1970, year of the latest breakdown, reveals that total net farm losses exceeded profits in income classes of \$50,000 or more. And, the higher a person's adjusted gross income (AGI), the greater the likelihood he ran his farm at a loss.

For instance, individuals with farm operators who reported an AGI of \$50,000-\$100,000 in 1970 showed combined farm profits of \$132 million and farm losses of \$139 million—nearly an even split. But nonfarm business returns in this income bracket showed profits of \$4,318 million and losses of \$112 million—38 to 1 in favor of profits.

In the AGI class over \$100,000, total losses of farm businesses outnumbered profits by 3 to 1 (\$122 million v. \$41 million). For nonfarm businesses, net profits topped losses by 8 to 1 (\$1,162 million v. \$149 million). (4)

—compared with 50 percent in 1966. Missouri farmers expanded herbicide treatment from 71 to 93 percent of their crop.

Last year, atrazine—applied alone or in mixtures—proved the most widely used herbicide on corn in the North Central region. Propachlor ranked second. Use of 2,4-D, however, plummeted from 51 percent of treated acreage in 1966 to 15 percent in 1972.

Soybean producers more than doubled the proportion of acres treated with herbicides during the 6-year span. The Corn Belt boasted heaviest use both in 1966 and 1972. Indiana led all States in 1966, with herbicides applied to 43 percent of the soybean crop. But by 1972, all Corn Belt States treated at least 70 percent of their acreage.

Chloramben was used primarily on soybeans in the North Central region during 1972. But alachlor, a relative newcomer, was applied in all States, and accounted for 15 percent of all acreage treated with specific herbicides. (8)

Poultry Production: Where It Flocked

After a flurry of moving about for 15 years, poultry production settled down in the mid-1960's and tends today to be in the same regions where it settled—only in greater concentrations.

In a recent report, ERS makes these notes on the changes in location and flock size affecting the egg, broiler, and turkey industries.

EGGS. From the early fifties to the mid-sixties, the share of nationwide egg production declined in the North Atlantic,¹ East North Central,² and West North Central³ regions. Their shares have stabilized at 14 percent each.

In contrast, these regions increased their shares until the mid-

sixties: the South Atlantic,⁴ South Central,⁵ Pacific,⁶ and Mountain.⁷ In recent years the South Atlantic and South Central regions together have accounted for 41 percent of production, and the Pacific and Mountain regions, for 17 percent.

Major gains in egg production during the 1960's showed up in North and South Carolina, Georgia, Alabama, Mississippi, Arkansas, Florida, Tennessee, Texas, California, Maine, and New York.

Declines occurred in Iowa, Minnesota, Wisconsin, Ohio, Michigan, Missouri, Nebraska, Illinois, and Pennsylvania.

Average flock size grew in all regions from 1964 to 1969, with the largest relative increases in the South Atlantic, South Central, and Pacific regions. Flock numbers also declined more in these regions than elsewhere. Nationwide, flocks of 10,000 or more accounted for less than 2 percent of the farms but nearly 72 percent of the birds in 1969, compared with .5 percent and 41 percent in 1964.

BROILERS. In recent years, the South Atlantic and South Central regions together have contributed 87 percent of output, the North Atlantic region, 6 percent, and the North Central and Pacific regions, around 4 percent each.

During the 1960's, the southern States experienced the greatest production increases. Output also expanded in Maine, Pennsylvania, California, Oregon, Washington, and Minnesota.

Important producing States that cut back on broilers included Missouri, Wisconsin, Indiana, Ohio, and West Virginia. The most concentrated pockets of production are now in Arkansas, Georgia, North Carolina, Mississippi, Alabama, Texas, Maine, California, Pennsylvania, Delaware, Maryland, and Virginia.

Average flock size increased in the major broiler producing regions—the South, North Atlantic, and Pacific areas—from 1964 to 1969, and at the same time, the numbers of flocks dwindled. In the North Cen-

tral and Mountain regions, flock numbers increased and average flock size declined.

TURKEYS. Since the 1960's the share from the various regions has been fairly stable. The West North Central is the single most important producing area, accounting for 30 percent of output. The South Atlantic region provides 17 percent and the South Central and Pacific regions, 16 percent each. The East North Central, Mountain, and North Atlantic regions make up the balance.

The sharpest growth rates in turkey production since 1960 have been in North and South Carolina, Georgia, Arkansas, Texas, and Mississippi. Minnesota and California, by far the leading producing States, have had slower rates of increase. Declines have occurred in the important producing States of Iowa, Virginia, and Wisconsin.

Although State Census data for 1964 and 1969 for farm numbers and turkey flock sizes are not strictly comparable, they do indicate that farm numbers fell and average numbers per farm rose substantially over the 5-year period. (5)

Poultry Poll

There are more chickens under fewer roofs than ever before.

The latest Agricultural Census, for 1969, shows a substantial increase in the average output per farm for the egg and broiler industries since the 1964 Census . . . and a drop in the number of producing units.

The number of farms reporting chicken flocks declined 60 percent from 1964 to 1969—from 1.2 million farms to 471,000. These flocks were mainly laying hens and replacement pullets. Average number of birds per farm went up more than 275 percent—from an average of 283 chickens per farm to 785.

While the number of farms selling broilers and other meat chickens fell about 4 percent to 33,700, the number of birds per farm rose more than 30 percent from 54,500 to 72,000. (6)

¹ Conn., Del., Maine, Mass., N.H., N.J., N.Y., Pa., R.I., Vt. ² Ill., Ind., Mich., Ohio, Wisc.
³ Iowa, Kans., Minn., Mo., Nebr., N. Dak., S. Dak. ⁴ Fla., Ga., Md., N.C., S.C., Va., W. Va.
⁵ Ala., Ark., Ky., La., Miss., Okla., Tenn., Texas.
⁶ Calif., Oreg., Wash. ⁷ Ariz., Colo., Idaho, Mont., Nev., N. Mex., Utah, Wyo.

Nitrogen's Perky Demand To Lift Fertilizer Use

Record amounts of fertilizer were used in the U.S. in fiscal 1972—41.3 million tons. Farmers used about 85 percent of this and it cost them \$2.4 billion. This year's usage is likely to top that mark—especially in view of the increase anticipated for nitrogen fertilizers.

Demand for nitrogen is expected to strengthen in 1973 because high grain prices this year will encourage farmers to plant and fertilize for higher yields.

Nitrogen use in 1971/72 was up in 6 of the 10 farm production regions. The steepest rate of increase—17 percent—occurred on cotton acreage in the Delta States.

Nationally, greater use of nitrogen on cotton about offset reduced use on corn. The biggest drop in nitrogen application was in the Corn Belt and Lake States where much of the cut in corn acreage took place.

The supply of high-analysis phosphate fertilizers was tight last year, and will remain so in 1973. However, production capacity of wet process phosphoric acid will expand with new plant construction.

U.S. capacity to produce ammonia, source of virtually all fertilizer nitrogen, will exceed demand in '73, but the supply-demand gap is likely to narrow with the pickup in nitrogen use.

Prices at all marketing levels are expected to drift up this year. Concentrated superphosphates and ammonium phosphates will probably be priced at or near their ceilings. Prices for high-analysis phosphates will continue to be particularly unyielding as the foreign market for phosphates is booming.

Fertilizer exports in 1971/72—valued at \$339 million—grew 17 percent from a year earlier, with much of the gain in concentrated superphosphates and ammonium phosphates. Though the U.S. was a net exporter of nitrogen and phosphate fertilizers in 1971/72, it was a net importer of potash. (7)



Men and Milestones

Washington, D.C., Winter, 1907
—George Harrison Shull reports the results of his revolutionary experiments with corn to a meeting of the American Breeders' Association.

Simply put, what George Shull had done was to create hybrid corn, which today accounts for virtually all of the American corn crop.

He did it by pollinating a single corn plant with itself and repeating the process with subsequent generations until he managed to isolate the pure strains of corn, the primitive ancestors of modern maize.

They weren't much to look at. Some were dwarfs barely 3 feet high. Others were spindly giants reaching upwards of 17 feet. All of them were low-yielding.

But Shull discovered that by carefully crossbreeding certain of the misshapen plants, he could develop corn that would out-produce the original parent stock.

Ironically, he was not primarily interested in increasing yields. He wasn't even very interested in

corn itself except insofar as it provided a vehicle for his scientific experiments.

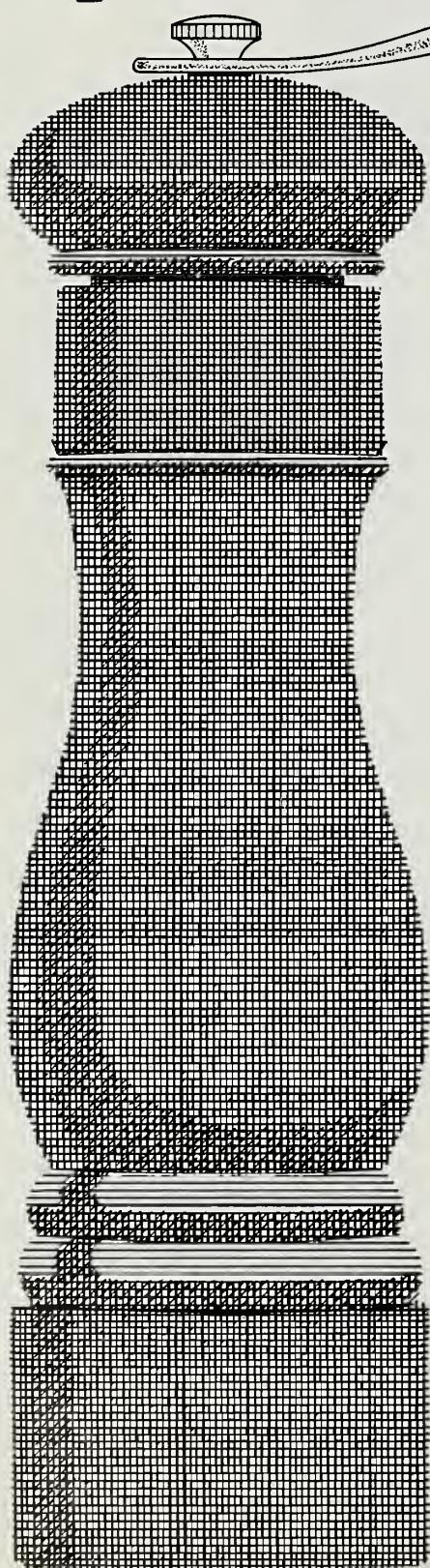
Shull was a botanist, born in Clark County, Ohio, on April 15, 1878. On receiving his Ph.D. from the University of Chicago in 1904, he took a job at the Carnegie Institution Station for Experimental Evolution at Cold Spring Harbor, Long Island. There he plunged into a study of genetics.

Shull chose corn for his investigations because it can easily be bred with itself, although it is normally cross-pollinated.

All told, he spent 8 years working with corn and then turned his attention to primroses, leaving others to expand on his findings and collect the financial windfall that he might have gleaned.

In 1915 Shull moved on to a teaching career at Princeton and established a reputation as a leading American botanist. Yet his earliest achievement was probably his most spectacular. For when George Shull developed the first hybrid corn, he modernized one of man's oldest foods. (9)

Added Dash for Spices



T

hough always considered exotic, spices have gathered new luster in recent years.

Before refrigerators became basic to every home, people used spices to preserve their foods, as well as to season them. Spices have since shed their utilitarian aspect, and taken on added status simply for doing what they're best at—enhancing the flavor of other food products.

Spice use in the U.S. showed new vitality during the past decade. As the sixties began, per capita consumption was a sparing 1.02 pounds—barely a pinch above the .78 pound level in 1920. But since 1960 use of spices shot up nearly 40 percent to an estimated 1.41 pounds per person last year.

Rising consumer incomes and changing life-styles explain most of the gain. Americans eat out more often, frequently at fast food franchises featuring such spice-laden items as tacos and pizzas. Equally important, the widespread fascination for gourmet-style foods has

added a touch of glamour to the use of spices.

Foreign fare. Exotic and mundane, most species must be imported, as they are derived from tropical plants not suited to U.S. climates. Too, domestic spice production on a commercial scale isn't practical due to extensive hand labor requirements.

Experts figure there are about 110 U.S. establishments that clean, blend, process, and package spices. These firms generally process several different spices to take advantage of economies of scale and to offer customers a fuller line of products.

For various reasons, spice imports usually arrive in crude or unprocessed form. Mainly, they tend to lose flavor soon after grinding, and thus can't be stored for long periods. Moreover, manufacturers find it easier to maintain quality control standards if they keep large stocks of unground spices of varying quality and blend them to buyer specifications.

Passing customs. Of some 29 spices that are now permitted to enter the U.S. duty free, 17 must be unprocessed or unground to qualify. Though duties on processed spices seldom exceed 7½ percent, the regulations provide added incentive to import raw spices only.

Wholesale spice prices vary widely and frequently prove quite volatile. For example, celery seed prices dipped as low as 21¢ per pound in 1966, then soared to \$2.25 in 1970. And while prices for vanilla beans have hovered above \$5.50 per pound in recent years, those for mustard seed haven't passed 12¢.

Mustard seed emerged as the hottest item on the U.S. spice market during the sixties. Imports of mustard seed nearly doubled from 1966-72, after supplanting black and white pepper as the biggest spice import in 1965. The surge is directly tied to the mushrooming of fast food franchises, particularly those that vend hamburgers and other sandwiches.

Not-so-hot prices. Last decade's sudden boom in mustard seed imports is also explained by a tapering in do-

mestic production—from roughly 20 million pounds in the early 1960's to around 5 million pounds today. Grower prices in recent years have drifted below 5¢ per pound, leaving little incentive to continue production.

Though mustard seed imports rank first in quantity, they place only fifth in value, with 1971 imports estimated at \$4.4 million. Pepper (black and white) holds top slot in this category. In 1971 pepper imports totaled \$26.4 million, nearly three times those of vanilla beans, the closest contender.

Both black and white pepper, incidentally, come from the same berry, which features a light colored core encased in a dark hull. Ground black pepper consists of whole berries picked before maturation, whereas white pepper is the hulled berry that's been harvested when ripe. Cooks prefer the white variety when the flavor of pepper—but not its dark specks—is desired.

Overall pepper consumption jumped from 37 million to 53 million pounds during 1960–71. Both black and white types shared in the growth.

Beyond black and white. Combined use of "other" peppers also showed some advances. This category includes paprika, capers, and capsicum (red or cayenne) pepper. Capsicum is attained from several pungent varieties of the red pepper plant and seasons such dishes as chili. Milder red pepper varieties are ground into paprika.

In terms of flavor and use, capers don't really qualify as peppers, though they resemble peppers more than any other spice. Capers are the unopened flower bud of a bush that grows wild in several Mediterranean countries. Spain and Morocco supply most of our imports, which are packed in vinegar or brine and served as pickles and garnishes.

Combined consumption of these "other" peppers inched up from .17 to .20 pound during the sixties. Imported ground and unground capsicum peppers captured nearly all the

upturn, as U.S. output of red peppers apparently leveled off over the decade.

Potpourri. Checking out other items in the spice rack reveals a mix of consumption and import trends during the sixties. . .

Per capita use of cinnamon and cassia fell back slightly, although imports changed little. Aromatic barks of tropical evergreen trees provide most of the world's cassia and cinnamon, which can be used interchangeably. Nearly all cassia sold at retail is, in fact, labeled "cinnamon."

Indonesia's our main cassia source, but in 1971 the People's Republic of China emerged as a prime supplier. Cinnamon comes mainly from Seychelles Islands, Malagasy Republic, and Ceylon.

The easing of trade relations with China and larger world supplies of cinnamon have sent cassia prices downward in recent years. Abundant supplies of either product tend to dampen any price rise that would otherwise occur when the substitute item becomes scarce.

The seedy side. Several spices are consumed mainly on bread and rolls. Combined per capita use of caraway, sesame, and poppyseed reached .28 pound last year—up a tenth of a pound from 1960. Sesame seed imports, accounting for most of the growth, nearly tripled during the sixties. Though sesame flourishes in any region hot enough to grow cotton, barely any is produced in the U.S., as the crop demands considerable hand labor.

Latin America and Africa provide the bulk of our sesame seed, while the Netherlands and Poland supply nearly all our caraway. Most poppyseed imports originate in Central and Southern Europe.

Though poppyseed and sesame seed traditionally are considered oilseeds, little crushing of either takes place in the U.S. It's believed that sesame was last crushed for oil back in the early 1950's.

Combined use of all other spices hovered at the 20-million-pound level

during the sixties. Imports of cumin seed, fennel seed, ginger root, tumeric, and vanilla beans, however, racked up sizable gains.

Allspice—so named because its flavor resembles a blend of cinnamon, nutmeg, and cloves—fared less well. Since 1965, imports have zigzagged—gains in one year have been offset the following year. One of only a few spices native to the Western Hemisphere, allspice enters the U.S. chiefly from Jamaica and Central America. (10)

What About Herbs?

The terms herbs and spices are frequently used interchangeably. In fact, most of us, if given a list of common herbs and spices, would be hard pressed to tell which is which.

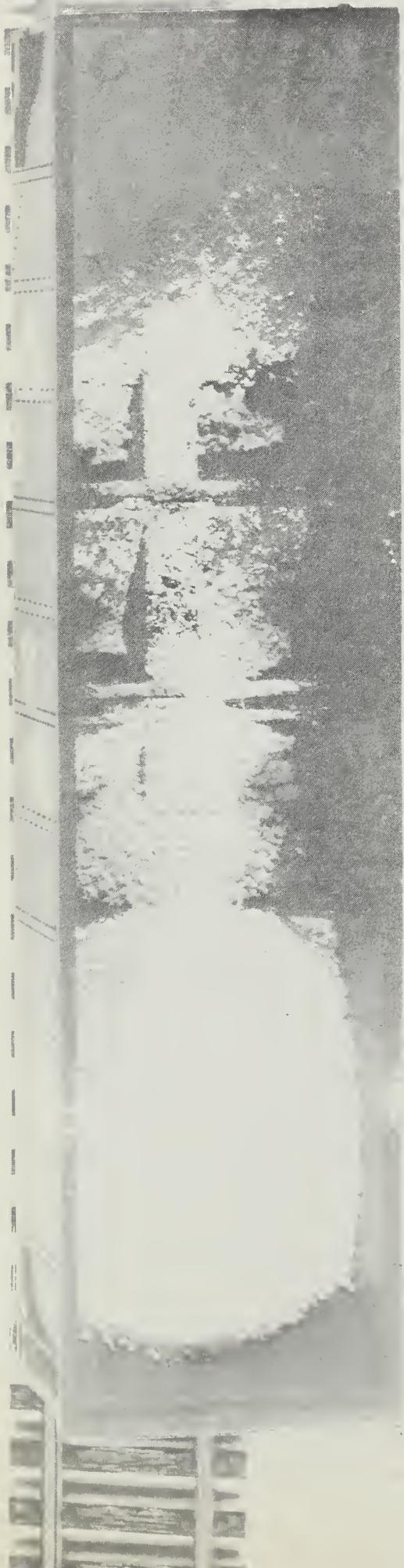
The traditional distinction has it that spices grow in tropical regions, whereas herbs originate in temperate zones. Too, spices are defined as aromatic vegetable substances — including seeds, leaves, stems, bark, roots, and other plant parts—in which the volatile oil or flavoring agent remains intact.

Herbs, on the other hand, consist only of aromatic leaves, stems, and flower heads. Since seeds are excluded, most of the spice-type seeds grown in temperate climates are simply dubbed "aromatic seeds."

The 1960's were very good years for herbs, as borne out by a doubling of herb consumption to 14 million pounds. In 1963, U.S. import statistics for the first time gave individual listings for basil, mint leaves, parsley, rosemary, savory, and tarragon. At the same time, imports of laurel (bay) leaves, marjoram, and thyme were once again reported separately, reviving an earlier series.

Celery seed imports shot up from 2.5 million pounds in 1960 to 4.2 million pounds in 1971. And imports of oregano more than doubled over the same period to an estimated 3.8 million pounds last year. The obvious reason: immense popularity of pizza, to which oregano is as basic as cheese and tomato paste. (11).

freight car capacity



U.S. railroads find it's not an easy chore to track down enough freight cars to haul massive Soviet grain purchases to ports in time for delivery in fiscal '73.

Record grain exports to Russia are taxing the already strained capacities of the Nation's railroads.

The entire Soviet purchase amounts to 19 million metric tons—a fourth of all farm exports projected for fiscal '73. It consists of 10.9 million metric tons of wheat, 7.0 million of corn, and 1.1 million of soybeans. The grains are committed for delivery before June 30, 1973.

A high proportion of all soybean and grain exports move to port by rail. And food grains (primarily wheat), feed grains, and soybeans account for roughly three-fourths the volume of all farm products hauled by trains.

Demand for freight space to carry grain and soybeans—seen a fifth higher than in recent years—falls on a greatly reduced freight car supply.

From 1962 to 1970 the number of covered hopper cars and general purpose boxcars suitable for hauling grain plunged from 646,000 to 503,000. The retirement of many old and small boxcars was offset only partially by the addition of modern, high-capacity hopper cars. Consequently, instant capacity of the fleet dropped from 30.8 million to 28.1 million metric tons.

Skepticism. Back in mid-1972 when USDA announced the huge grain sale, skeptics questioned whether railroads could muster sufficient freight car capacity to meet delivery schedules. It's still too early to prove them wrong.

Locating empty rail cars to move grains proved quite difficult several years during the sixties, even when export volumes were well below those anticipated this year. Too, annual economic activity in fiscal '73 is expected to top last year's level, adding to competition for freight car capacity.

The rail lines most affected by the surge in grain and soybean exports are those serving Gulf ports. The Soviets purchased primarily Hard Red Winter wheat. Rail lines from production regions lead most directly to Texas ports. Over the past 2 years, nearly 90 percent of all Hard Red Winter wheat shipments moved through Gulf ports.

Gulf ports also provide the starting point for most U.S. feed grain and wheat exports to the Mediterranean area—gateway to Russia's Black Sea ports. Thus, if the Russians make heavy use of their Black Sea facilities, U.S. Gulf ports—and the trains that serve them—will receive the brunt of increased export levels.

Icebound ports. During fiscal '72, roughly a third of all Russia-bound feed grains moved through Great Lakes and Canadian (St. Lawrence) ports. These ports, however, usually close from late December to mid-April due to freezing. Though North Atlantic ports may substitute during this period, a shift to these facilities lengthens rail shipments, tying up cars for longer periods.

During July-September 1972, only about 1.5 million metric tons of corn—of the total 19 million-ton purchase—left U.S. ports. Lack of shipping arrangements between the U.S. and USSR was largely to blame.

es-the crunch is on

Though an agreement was reached in mid-October, it brought no sudden pickup in exports.

The upshot was to push a larger-than-anticipated export load into the final quarter of '72 and first half of '73—creating a bigger crunch on rail and Gulf port capacities. Wheat shipments are now being expedited so that U.S. ports will clear by the end of May when export subsidy commitments on wheat sales are due to expire.

Congested elevators. Huge shipments now moving to ports may at times clog grain elevators and bottleneck rail traffic. Experts contend, though, that holding capacity of non-farm country elevators, as well as interior terminal and port elevators, is sufficient to handle projected grain exports—provided rail facilities are adequate to assure prompt pickup and delivery.

Any transportation tie-up at port elevators could quickly jam harbors with empty vessels waiting to load, or choke ports with rail cars unable to discharge their cargoes. Repercussions would reach back to country and interior terminal elevators which would soon lack empty cars for additional grain shipments.

Avoiding bottlenecks. Several actions have already been taken to expedite rail service and prevent bottlenecks at grain elevators and other shipping points. One involves revising the ways certain railroads deploy empty rail cars.

For example, when demand for freight car capacity exceeds supply, empty cars are often retained and reloaded near locations where they first become available. But grains and soybeans usually originate at

country points far removed from major unloading sites. Dispatching empty cars to pick up these commodities has frequently required intervention by regulatory agencies.

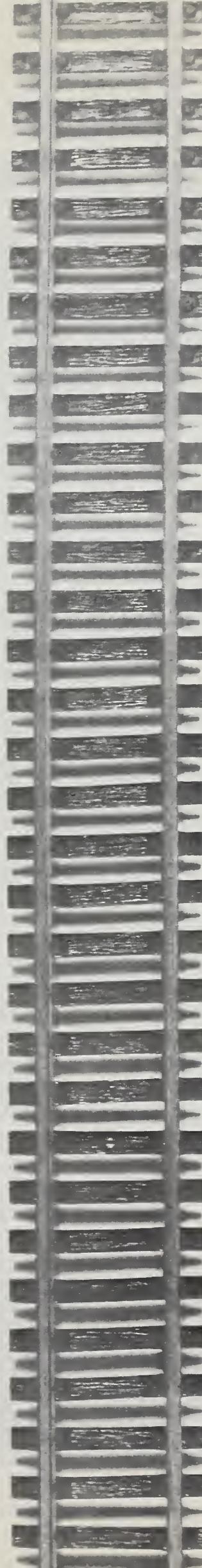
To speed the flow of cars, and thus increase the fleet's annual capacity, the Interstate Commerce Commission (ICC) last October issued a directive for prompt pickup, unloading, and forwarding of all freight cars. The order also specified that shippers holding empty cars for placement should be assessed storage charges.

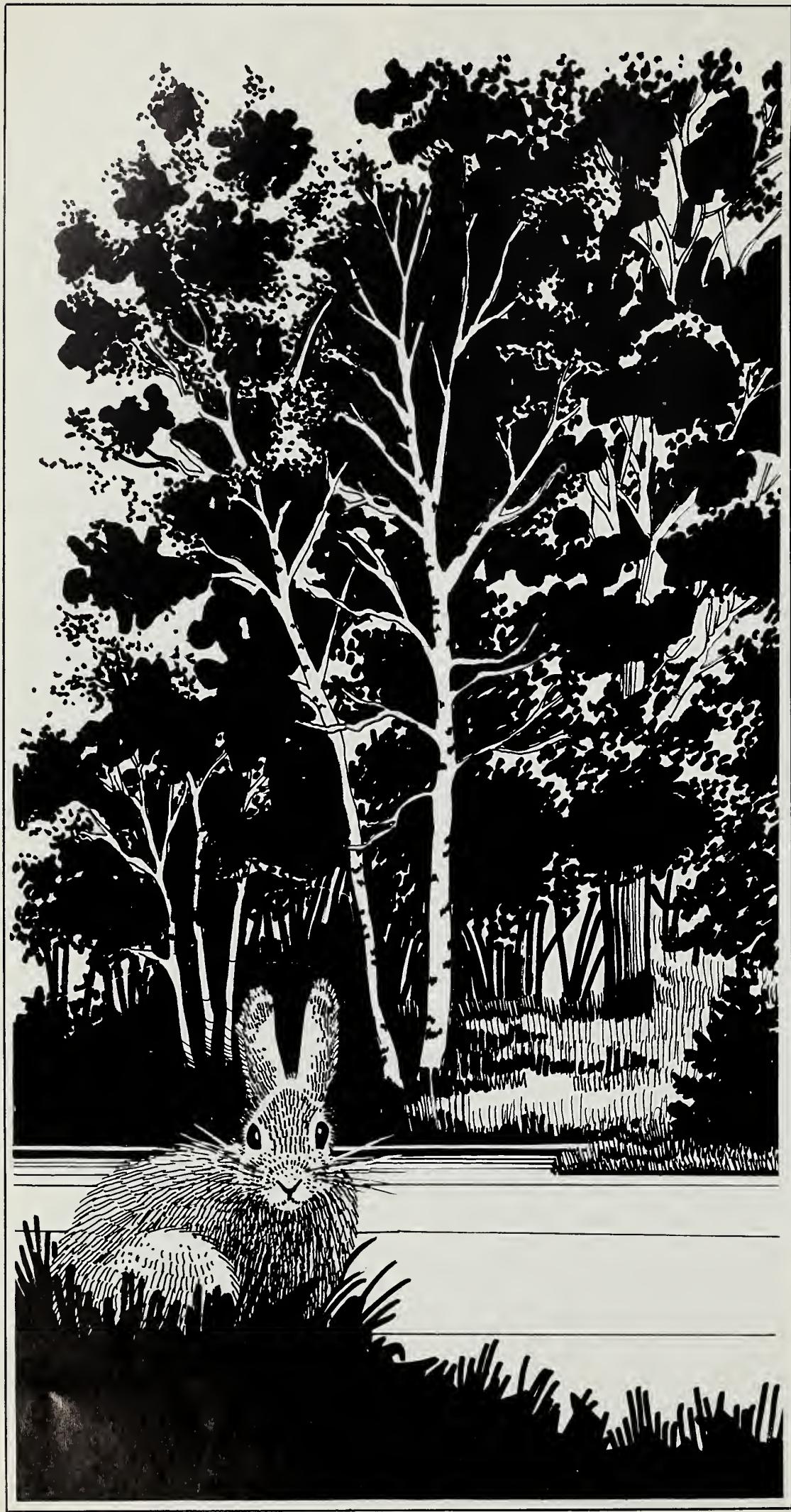
Similar moves in the past often failed to turn up enough empty cars to satisfy demand. This could be the case again this year, particularly if economic activity remains high and ports become congested.

Car distribution directives have proven an effective tool for both railroads and the ICC in easing tight car supplies for specific areas. These directives force shippers to share available freight capacity by ordering railroads emptying cars to forward the cars to other rail companies needing empty cars for loading.

Embargoes effective. Embargoes also have worked to clear port and interior elevators. These facilities occasionally become crowded with full rail cars previously committed to unload there.

Railroads serving the congested destinations can request the Association of American Railroads to embargo the elevators, thus preventing other railroads from dispatching more cars to the sites until congestion eases. During brief periods since October 1972 the Association has embargoed several ports and at least one interior elevator. (12)





LAND ISSUES

In the years to come, we can expect a lot of attention paid to how we should use our land. Here, ERS looks at some of the uses that will bid for rural acreage.

If you'd sit down with a pile of newspapers from around the country and sift through, looking at land issues, you'd probably be amazed at how widespread some of the "local" issues are.

An Ohioan would find strip mining isn't just a local situation . . . residents of New Jersey would realize wetlands development was far more extensive in other parts of the country . . . and we'd all realize that the demand for recreation land affects just about everyone.

ERS focused on some of these current rural land problems in a recent study, providing perspective on a lot of issues in the news.

Let's look at four such issues: competing uses for rural land near cities; agricultural development of wetlands and woodlands; energy demands affecting rural land use; and the impact of outdoor recreation growth on rural lands.

RURAL LAND NEAR CITIES. Probably the most common news story on land issues gets down to the competing uses for rural land near cities. And there's a surprising amount of rural land in and around cities.

The 1970 Census shows that 70 percent of the population lives in what are called Standard Metropolitan Statistical Areas (SMSA's). An SMSA consists of an entire area in or around a city or community of 50,000 or more people and where activities form an integrated economic and social system.

All told, the SMSA's in 1970 encompassed about 13 percent of the total land area of the 48 contiguous

States—or about 253 million acres.

However, only about 10 percent of the SMSA land area was actually in urban uses in 1970. Most of the land is still in rural type uses. Much of it, though, is not readily accessible to many urban residents.

Land uses in the SMSA's varied widely by region in 1970. In the Appalachian, Southeast, and Delta States, more than half of the nonurban SMSA land was wooded, and nearly half in the Northeast. In the Lake and Pacific States, more than a third was wooded. In total, nearly one-third of the entire SMSA acreage was woodland in the 1970 Census.

In the Northern Plains and the Corn Belt, more than half of the land in the SMSA's was cropland, and in the Lake States, more than a third.

Farm production area. Agriculturally, the SMSA's play an important role. About 14 percent of the Nation's harvested cropland and 21 percent of all irrigated acreage is in SMSA's.

All of the major U.S. crops, measured in terms of total value of production, are important in SMSA's. In the mid-1960's the SMSA's produced about 16 percent of our wheat, 17 percent of our corn, about 60 percent of the vegetables sold, and 43 percent of the fruits and nuts.

Fruit and vegetable production tends to remain concentrated in urban areas even as cities expand. Farmers usually just move a little farther out. But in the case of corn, soybeans, wheat, cotton, tobacco, and hay, the relationship is largely competitive. These generally are produced in areas where soils and climate are most favorable, and where markets and transportation combine with production conditions to give them an economic advantage. As land producing these crops becomes urbanized, adjustments are made nationwide.

WETLANDS DEVELOPMENT. Wetlands—areas with poor drainage or frequent overflow from flooding streams—comprise a large land acreage in

the U.S. They take up about 265 million acres, or about 18 percent of rural non-Federal land.

Of this total, 100 million acres are used for crops, 61 million acres are considered unsuitable for cultivation, and 104 million acres are classified as potentially suitable for cultivation.

These 104 million acres are mainly in two broad regions in the more humid eastern half of the country. About half are in the coastal plains of the southern U.S. and 35 percent are mainly in the glaciated areas of the northern U.S.

Action areas. At present, the principal development of wetlands for agricultural purposes is found in the lower Mississippi Valley, South Florida, and scattered small-scale development in other regions and localities.

In the Mississippi Valley and South Florida, wetlands development differs in several respects.

The lower Mississippi Valley comprises an alluvial area averaging around 600 miles long and 65 miles wide and extending from southeast Missouri to southern Louisiana. Innumerable low ridges or natural levees retarding drainage were formed and then abandoned as the river channel migrated.

The area has a modern agricultural economy, based primarily on cotton and soybeans. Crops are produced on reclaimed wetland, a long-time activity that has accelerated in recent years. A recent study shows 4.1 million acres of forested wetlands were cleared and drained during 1950-69, mostly for soybeans.

Effect limited. Despite extensive clearing and drainage, environmental change in the Mississippi Valley appears to be limited to a reduction in total wetlands and associated biological resources. Even if development continues, substantial acreage will remain unreclaimable. Because of the local rather than interlocking nature of the drainage, agricultural development has little direct effect on much of the remaining undeveloped area.

In southern Florida, the situation is entirely different. The concentration of wetland development centers around Lake Okeechobee and involves some 10 million acres, including the basins of the Kissimmee River and smaller streams.

However, only about 6 million acres are subject to direct developmental pressures from either agricultural or nonagricultural uses.

Agricultural land developers in the Lake Okeechobee area are attracted by climate. The humid, near tropical conditions permit production of high value crops—particularly tomatoes, sweet corn, snap beans, and other vegetables for the winter market. Yields are not notably high.

Crop production depends on an extensive system of flood control and drainage installations constructed by the Army Corps of Engineers and operated by the State. The project is multipurpose, providing water control and supply for both agricultural and nonagricultural uses.

Projections are that from 1965 to 1985, the undeveloped wetland area of South Florida would be reduced by 30 percent, and a similar trend could continue beyond 1985.

Of the 6.3 million acres suited for agricultural development, it's projected about 400,000 will be used for cropland by 1985, 400,000 for improved pastures, and 400,000 may be absorbed by urbanization.

Serious impact. The impact of wetlands development in South Florida is particularly serious because the water supply of the entire overflow area, not merely the developed part, has been affected to some extent. The truly unique flora and fauna of the Everglades is dependent on periodic overflows from Lake Okeechobee. Both the quantity and time of overflow are important to maintaining the natural state, and this delicate balance has been modified by agricultural and nonagricultural development.

Complicating the problem of water supply is the problem of water quality. Chemicals and other pollutants enter the water supply from both ag-

ricultural operations and extensive urbanization.

ENERGY DEMANDS. Rural areas will be affected by a number of adjustments in energy production that are occurring or are in the offing. These include—

✓ overall expansion of the production of energy to meet the demand created by population increase and greater per capita consumption.

✓ changes in technology to minimize environmental impacts.

✓ shifts being made in types of fuel used: for example, the shift from oil to natural gas and low sulfur oil and coal in order to minimize air pollution.

✓ a substantial increase in the future use of coal, particularly that obtained by surface mining, because of constraints on the supply of oil and gas and problems with nuclear power.

✓ location of facilities for generating electricity from fossil and nuclear fuel away from congested areas.

This situation appears to have three major implications for rural areas.

More surface mining. First, surface mining of coal will increase. About 1.5 million acres of land have been disturbed by surface coal mining, and rates of exploitation are being stepped up. (If all the available reserve of 128 billion tons of stripable coal were to be recovered, as much as 45 million acres of land could be disturbed.)

Output per worker is about double that of underground mining, operating costs are 25–30 percent lower, and equipment is getting larger.

Heads west. Some 77 percent of the country's economically stripable reserves lie in 13 States west of the Mississippi. As utilities consume more low-sulfur coal, surface mining in the West could assume major proportions.

The next largest concentration of stripable coal is in an area encompassing the southern two-thirds of Illinois plus adjacent corners of Indiana and Kentucky. In 1964, this

region took the lead in strip coal production and has since been increasing that lead.

Northern Appalachia, which ranks third in stripable coal resources, was the largest producer till 1964, falling behind because much of the easily stripable coal has been mined and because the new equipment is better adapted to more even terrain.

In its virgin state, the U.S. had about 115 billion tons of coal lying within 100 feet of the surface. Less than 5 billion tons have been mined, with 110 billion left in 15 States that each have over 1 billion tons. Montana alone has 23 billion tons.

The second implication of the energy situation for rural areas is the trend of locating electricity generating facilities away from congested areas so that chemical and thermal electric pollution of air and water can be diffused.

By 1990, there are projected to be 492 large thermal generating plants—more than twice the number in 1968. Many of these larger facilities may require cooling ponds of 2,000 acres or more to aid in dissipating surplus heat.

The third implication is that location of large plants away from urban concentrations will mean more and probably larger transmission lines transecting the countryside. There currently are over 300,000 miles of overhead transmission lines passing over about 4 million acres of right-of-way. Prospects are that about 100,000 miles of new lines on 1.5 million acres of right-of-way will be constructed each decade for the balance of this century.

RECREATION'S IMPACT. Recreation involves one-fourth of the Nation's land and three-fourths of its population.

Population and income growth—as well as more leisure time—are certain to intensify the two issues already facing recreation interests: access to land and environmental protection.

Spending doubles. Americans doubled their outlay for recreation in the 1960's. Spending reached \$36 bil-

lion in 1969, or about \$179 per person. About a fourth of this was connected with outdoor recreation.

Land area available for or actually used for recreation probably exceeds 3 acres per person. However, more than half the total recreation land is in the Mountain States, and about a fourth is in the Pacific States.

Less than 10 percent of recreation acreage is located in urban areas, although over half of public recreation sites are in urban areas.

In the future. Federal, State, and local governments are expected to acquire additional land for recreation and wildlife use, including some farmland. Most of this land is mountainous or swampy and of limited use for agriculture. Also, many thousands of acres will be converted to recreation use by private developers and owners.

In addition, recreation use is often compatible with other uses. Further recreation development continues as a joint use of rural land in agriculture or forestry or in watershed protection areas.

Second homes. In some localized areas, development of land for recreation may compete for good agricultural land. But the conversion of cropland for either public or private recreation use has been considerably less than the voluntarily and publicly subsidized withdrawal of surplus cropland in recent years.

The demand for individual private recreation sites, including second homes, may have greater impact on rural areas in the long run than will the acquisition of land for either public or commercial recreation sites.

The withdrawal of forest land for recreation has been more significant than the withdrawal of cropland. In a large part, however, it has been balanced by a reversion of crop and pastureland into commercial forests.

While there is no overall shortage of rural land for recreation purposes, there is pressing need for more recreation lands directly accessible to urban populations. (13)

[Third in a series.]

Nonmetro Areas Quick To Rebound From Economic Recessions

Not only do rural areas do well in good times, but they also seem to have developed a thick skin against economic slowdowns.

A special ERS tabulation reveals that employment in rural, small town, and other nonmetropolitan communities was less sensitive to economic recessions than metro places during 1962-72.

And, the nonmetro areas rebounded faster as the economy recovered.

For nonmetro territory the economic climate was especially favorable between 1962 and 1967. In this 5-year span, nonmetro areas added new jobs in manufacturing and construction at the rate of 5 percent a year—over 1 million, or a quarter million more than the loss in farm employment. The rate of gain was about 3 percent in metro areas.

New employment was created in the nonmetro areas for some 1.5 million wage and salary workers in the service-performing industries.

Unemployment dropped by over a half million, 15 percent more than in the metro units.

Toward the end of the 1960's, rural and other nonmetro economies lost momentum while those of the metro communities accelerated. The number of new jobs in nonmetro units trailed the expansionary years of 1962-67 by some 50,000 annually.

In 1969-1971, however, layoffs in manufacturing in the nonmetro areas proved far less drastic than in the metro areas.

Construction employment held its own. Reductions in the farm work force leveled off.

Gains in private wage and salary workers in the service-performing industries were only 10,000 a year less than in 1967-69.

When the economy perked up in 1971, rural America again fared relatively well. Added in 1971-72 were a half million nonfarm wage and salary jobs, or three-fourths as many as in the metro areas with their much larger employment bases.

Manufacturing employment swelled by 138,000, whereas the metro units lost 126,000. Construction activity staged a vigorous recovery.

Meantime, unemployment fell by 85,000 in nonmetro communities, double the rollback in metro areas.

For 1962-72 as a whole, nonfarm wage and salary employment grew 3.5 percent (4.4 million) in the nonmetro areas versus 3.0 percent in the metro units.

In manufacturing and construction, job additions of over 1.3 million outnumbered those in the metro units.

In the service-performing industries, rates of increase in private nonfarm wage and salary workers were identical in the metro and nonmetro areas, as newly industrialized

communities in rural America improved their housing, hospitals, schools, and other facilities.

In government employment, rural areas never did approach the expansion of the metro units in 1962-72. School consolidations, highway maintenance, and the closing of government installations led to job reductions which offset increases in rural growth communities.

Despite the drop in unemployment in nonmetro areas, the rate in 1962-72 remained about 0.6 percentage point higher than in the metro units. This was due in part to the seasonal nature of farm and rural employment. Joblessness also reflected the tendency of rural people, particularly in Appalachia and the Pacific Northwest, to take on summer jobs in metro centers. (14)

EMPLOYMENT SHIFTS: RURAL AND OTHER NONMETRO AREAS, 1962-72¹

	Annual gain									
	1962-72		Expansion				Contraction		Recovery	
			1962-67	1967-69	1969-71	1971-72				
ALL NONMETRO²	Thou.	Pct.								
Employment ³	317	1.7	329	1.8	341	1.7	155	0.7	536	2.5
Nonfarm wage and salary	440	3.5	517	4.1	468	3.1	189	1.2	502	3.1
Goods-Producing	34	0.4	63	0.8	49	0.6	-136	-1.6	195	2.4
Nonfarm	134	2.9	203	4.3	152	2.7	-82	-1.4	186	3.2
Manufacturing	118	3.2	182	4.9	152	3.3	-88	-1.8	138	2.9
Construction	19	3.5	27	4.9	4	0.6	2	0.3	45	6.5
Farm	-100	-2.9	-140	-4.1	-103	-3.8	-54	-2.1	9	0.4
Service-Performing	275	2.8	260	2.6	282	2.5	282	2.4	327	2.7
Wage and salary	298	4.3	308	4.4	306	3.6	262	2.9	302	3.1
Private industries	181	4.2	178	4.1	183	3.5	173	3.1	202	3.4
Trade	87	3.5	83	3.4	84	2.9	85	2.8	112	3.5
Service groups	81	5.4	82	5.6	86	4.5	74	3.6	76	3.4
Government	117	4.4	130	4.8	123	3.7	89	2.5	100	2.7
Other nonfarm	-23	-0.8	-48	-1.7	-24	-0.9	20	0.8	25	1.0
Unemployment	-13	-0.8	-107	-6.9	-39	-3.8	285	30.6	-85	-5.7
METRO										
Employment³	1,197	2.5	1,493	3.1	1,725	3.1	174	0.3	708	1.2
Nonfarm wage and salary	1,234	3.0	1,576	3.8	1,740	3.5	162	0.3	661	1.2
Goods-Producing	95	0.6	392	2.4	296	1.6	-760	-4.1	-78	-0.5
Nonfarm	120	0.8	424	2.8	321	1.9	-740	-4.1	-75	-0.5
Manufacturing	71	0.6	371	2.9	200	1.4	-707	-4.7	-126	-0.9
Construction	49	2.5	54	2.7	121	5.5	-33	-2.3	51	2.1
Farm	-25	-2.4	-32	-3.0	-25	-2.8	-20	-2.3	-3	-0.4
Service-Performing	1,054	3.6	1,039	3.6	1,364	4.0	908	2.4	806	2.1
Wage and salary	1,066	4.5	1,090	4.6	1,354	4.7	876	2.8	756	2.3
Private industries	731	4.2	732	4.2	997	4.8	568	2.5	529	2.2
Trade	311	3.6	325	3.7	408	3.9	205	1.8	258	2.2
Service groups	333	5.5	343	5.6	450	5.8	270	3.1	181	2.0
Government	335	5.3	358	5.7	357	4.4	308	3.5	227	2.4
Other nonfarm	-12	-0.2	-51	-0.9	10	0.2	32	0.6	50	0.9
Unemployment	51	1.7	-182	-6.0	-70	-3.3	804	40.8	-43	-1.2

¹ Adapted from State employment security agency estimates for mid-March of individual years. ² Areas essentially outside Standard Metropolitan Statistical Area designations of January 7, 1972. ³ Includes employment in mining, FIRE, and TCU industries.



The U.S. sheep industry—which has been troubled over low lamb sales—gets some good news from an ERS study showing that buyers will warm up to frozen lamb.

If Mary had a little lamb (3.5 pounds in fact) she could have been today's average consumer.

That's how much lamb the typical American eats yearly. While Americans have traditionally not been big lamb eaters, consumption 30 years ago was nearly double the present amount.

Meanwhile, consumption of beef —lamb's chief competitor among red meats—has been expanding steadily. Since 1950 beef consumption per person has nearly doubled, going from 63 pounds to 113. Pork has remained relatively stable at around the 70-pound level.

Figures like these are not pleasing to the sheep industry. While a partial explanation may be found in the mounting difficulties of sheep ranching, the solution mostly lies in a different direction: expanding the mar-

ket for lamb products.

Marketing men are predicting that new directions in merchandising lamb could bring about the long-awaited boost in sales. Their predictions are reinforced by a study indicating that consumers will warm up to frozen lamb if it is packaged and merchandised properly.

Sheep numbers down. One reason for lamb's current low status in the marketplace can be traced to the sheep ranch.

Though sheep played an important part in the U.S. in the early days of Western expansion, frontier grazing lands are gone. The public domain and other open range, on which many ranchers now depend for their existence, have contracted. Access to grazing land has also grown more difficult, as open trail lanes have been taken up in private property.

At the same time, labor has grown more scarce and more costly. Good herders are hard to get, and a bad one can ruin an entire herd in a short time. Usually, the owner is removed from the daily operation and

must depend on the herder to protect an investment of about \$85,000 in livestock and equipment.

Add to this other increased cash expenses for ranchers, and it is not surprising that since 1930 the total sheep population in the U.S. has dropped from almost 50 million head to under 20 million. This has led to a reduction in lamb slaughter rates, and in turn has affected market stability.

With less lamb going to market, and with the ups and downs of meat packers and inefficiencies in slaughter, it has been difficult for retailers to maintain a full product display at the meat counter or expand markets to new areas. This inconsistent availability has been one of the chief obstacles to lifting per capita lamb consumption, but not the only one.

Lamb prices up. Retail lamb prices are high compared to other red meats. In late 1972 Choice beef prices averaged slightly under \$1.13 per pound, in comparison with \$1.21 for lamb. The pork figure was 88¢, with broilers lowest of all at 42¢.

Other factors have been the slackening demand for wool, plus limited consumer acceptance of lamb.

In spite of these signs, it would be premature to conclude that lamb is destined to become little more than a specialty meat.

According to a new study, the development of convenience lamb products could significantly improve lamb's market position.

Frozen lamb's debut. The study, done by Texas A&M University, analyzed sales of a new line of frozen, boneless, boxed lamb products to determine the potential for stimulating market sales through product innovation. The frozen lamb was similar to the deboned and compacted turkey rolls which have successfully boosted turkey sales in recent years.

Picked for the test were two cities where lamb consumption is traditionally low—Tyler, Texas, and Tulsa, Oklahoma. During 2 weeks of mass media advertising and in-store demonstrations, sales of the new product were 5.8 pounds per 1,000 customer store visits—slightly over half the figure for fresh lamb.

Of regular fresh lamb users who purchased the frozen lamb, nearly half made repeat purchases. Among non-lamb users who tried frozen lamb for the first time, 14 percent bought the product repeatedly—indicating good potential for converts to lamb use.

One ERS economist, who has written extensively on the sheep industry, sees convenience products like frozen and processed lamb playing a key role in boosting sagging sales.

Many of the drawbacks of fresh lamb are not shared by the frozen product: There is less labor cost at the retail market; the product can be packaged in convenient sizes and has a longer shelf life; the manager can order just the cuts that move in his market; and shoppers can select from a consistent, uniform display.

Since 1962, there has been a 280-percent increase in the amount of turkey meat going into frozen turkey rolls and other processed products. Similar utilization of lamb, by

broadening the market and bringing prices down, might not mean that Mary would have a lot of lamb—but sheep producers are hoping she'd at least buy it more often. (15)

Hog Producers Polled On Contract Plans

A future for sow leasing and contract feeding in the hog business?

For more information about these ventures, a study team talked with 88 Indiana farmers who were under contract with feed dealers last year.

Forty of these pork producers had feeding contracts at the time of the survey, and four-fifths reported they intended to renew them.

But less than a fifth of the 48 producers with sow lease contracts expected to renew. Main reasons given had to do with the high cost of leases along with dissatisfaction with the breeding stock, the contractor, or both.

Besides contract renewals, the study team was interested in getting information about the farmers themselves and why they go into these arrangements.

Over half the producers in this study had gross farm sales in 1971 of more than \$40,000. A slightly higher percentage of the hog finishers than the sow lessors were in this class. Fifteen percent of each group had sales of over \$100,000.

The sow lessor, the survey found, has an expanding operation. His is larger than the average hog farm by almost any measure, though typical of other growth-oriented operations in the Corn Belt.

Numbers of sows leased averaged 86 among the 48 respondents, most of whom had at least 50 percent more hog production than before they went on contract.

The average Indiana sow lessor was 41 years old in 1972—nearly 9 years younger than the average hog producer in his State. His main business commitment was to the hog enterprise, and income from hogs provided the main source of income.

He leased hogs primarily to get

sows with meat-type conformation from Specific Pathogen Free (SPF) herds and to obtain a source of capital for expansion, although he probably could have gotten it just as readily from usual sources.

On this last point, the researchers emphasized that the demand for the lease might increase with the trend toward larger operations and the need to find greater sources of capital.

"Whether or not there is even a small permanent niche for leasing," this study said, "may depend on the capability of a lease to serve as a financial instrument."

On the other hand, it's possible the lease market could be eroded substantially as opportunities open up to buy, rather than rent, SPF stock.

On balance, the study team concluded it would appear there is not a growing role for sow leasing in Indiana.

As for the typical hog finisher, the average age of those sampled was 39—10 years younger than the average Indiana hog producer. Number of hogs fed averaged 1,000 per operation at the time of the survey.

Three-fourths of the 40 respondents had off-farm employment, and over half held full-time jobs in other lines of work.

The typical hog finisher went into contracting to reduce the uncertainty of returns from hog farming. Eighty percent of those surveyed ranked this reason No. 1. The desire to get credit was the second most important incentive, followed by a need for technical assistance.

Many of those surveyed felt the dealer-contractor made a specialized contribution to their business. Producers who were paid a flat rate per pound of pork produced cited management services and disease control as the contractor's principal benefits they received. In some of the profit-sharing arrangements, producers mentioned the high quality of pigs provided, and the effective marketing services rendered.

Among other key conclusions of the survey of hog finishers were—

Producers would continue to feed hogs on contract provided the feed firm offered a sound program.

The potential number of farmers with feeding contracts is increasing with the rising tendency for small farmers to get nonfarm jobs for their main source of income. Contracting is a good device to split up the management and labor requirements when the producer can't be on the farm all the time.

These factors in particular will de-

Lard on the Skids

Although we're still using the same types of fats and oils as 20 years ago, there's been quite a slippage in the market share held by animal fats.

Two decades ago the food fat market was split about equally between animal fats (lard, butter, and edible beef fats) and edible vegetable oils. By 1972, however, edible oils had captured 75 percent of the 11½-billion pound market for food fats.

On a per capita basis, edible vegetable oil usage doubled since the early 1950's—from 22 to 41 pounds—whereas animal fat consumption shrank from 22 to 13 pounds.

Animal fats lost ground to margarine, shortening, and similar salad and cooking oils derived from vegetables.

Margarine's spread over butter has continued to widen. In 1972 the average American ate twice as much margarine as butter—just the reverse of the 1950 pattern. Margarine's use advanced from 6 pounds (product weight) per person in 1950 to over 11 pounds last year.

Meantime, lard—the chief animal fat and a long-time cooking favorite—is being used less than ever. Two decades ago, lard led in the popularity polls with a third of the market for food fats and oils. Soybean oil and cottonseed oil each had a fifth of the market.

But since 1950 soybean oil has moved to the fore. It now claims over half the total market for food fats, and accounts for about seven-tenths of the total amount of the edible oil that is consumed domestically. (17)

termine the future of contract feeding in Indiana: (1) the profitability of having separate enterprises for farrowing and finishing; and (2) the ability of feed dealers and others to make a needed contribution to the feeder's business. (16)

Grocery Shoppers Report On 'Bad' Food Purchased

How often does the average American consumer buy food that doesn't meet his or her expectations for freshness?

That's what the Consumer Research Institute, cooperating with ERS, set out to discover in a nationwide telephone survey of more than 1,500 shoppers.

They found that one out of five shoppers said they had bought food during the preceding 2 weeks that was either spoiled or stale when they got it home or that went "bad" before the consumer felt it should.

Perishable and semi-perishable foods were almost exclusively the cause for complaint—meats and poultry, processed meats, fresh dairy products, baked goods, and fresh fruits and vegetables.

Young consumers, especially those 18 to 24, reported cases of spoiled or stale food more frequently than other age groups.

Shoppers with higher income and educational levels reported dissatisfaction with food more often than others. Of those consumers with an annual family income of \$15,000 or more, 26 percent said they had bought unsatisfactory food in the 2 weeks prior to the survey, compared with only 17 percent of those with incomes between \$5,000 and \$10,000. Fourteen percent of the shoppers with less than a high school education reported buying "bad" food, but of those shoppers who had attended college, 45 percent reported dissatisfaction.

The rural, small-town consumer reported encountering spoiled or stale food less often than the suburbanite: 17 percent of the rural consumers versus 21 percent of the sub-

urbanites made such reports.

About 19 percent of the supermarket shoppers reported instances of "bad" food, compared to 16 percent of shoppers of small neighborhood stores.

However, on the whole, consumers in the survey were satisfied with the freshness of the food they bought. Ninety-three percent said they were either "very" or "fairly" satisfied.

Those most likely to be dissatisfied were younger, better educated, more affluent consumers, and those with larger families. This dissatisfaction may be related to higher expectations by these shoppers rather than purchase of foods that are not as fresh as those purchased by other shoppers.

Of those customers who found they had purchased food that was spoiled or bad in some way, most asked that it be replaced. Nearly as many "forgot about it," while a much smaller percentage asked for their money back. (18)

U.S. Cigar Filled With Foreign Tobacco

It's a fact: the biggest part of the American-made cigar is packed with foreign-grown tobacco.

ERS reports that 60 percent of the filler used by U.S. cigar manufacturers last season was imported. The trend has been, as U.S. cigar production has gone down, to use a greater proportion of imported tobacco. The price of domestic cigar tobacco is typically higher, partly because U.S. manufacturers of loose leaf chewing tobacco bid strongly for it.

About a third of our imports last season—the year ending September 30, 1972—came from the Philippines. The Dominican Republic and Colombia each furnished 10 million pounds and Brazil, 7 million of the 92-million pound total. Some 25 other countries supplied the rest.

A little over 10 years ago, Cuba supplied nearly two-thirds of some 60 million pounds of imported cigar tobacco and the Philippines supplied most of the rest. (19)

Recent Publications

An Analysis of the Fresh Egg Futures Contract With Proposals for Change. Henry Larzelere and Joel Horowitz, Michigan State University. AER 236.*

This report discusses the current uses of the egg futures contract and some proposals to improve its effectiveness, especially in providing a method of forward pricing and a method of price stability that will benefit the egg industry and the general public.

Seed Crops: Revised Estimates, 1964-69; Acreage, Yield, Production, Value, Supply, Disappearance. Statistical Reporting Service. Stat. Bull. 499.

This publication presents the revised estimates of acres harvested, yield per acre, production, seasonal average price received by growers, and species of seed crops estimated by the Crop Reporting Board.

1972 Agricultural Statistics. Statistical Reporting Service.

A fact-filled yearbook on American agriculture, this volume brings together for handy reference statistical series published on a current basis in a number of Department publications. In addition, statistics are included on USDA stabilization and price support programs, soil conservation practices, consumer food programs, and electrification and telephone loans. Available for \$3.25 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Vegetables—Fresh Market; 1972 Annual Summary; Acreage, Yield, Production, Value. Statistical Reporting Service. Vg 2-2 (72).

Estimates in this publication relate primarily to fresh market production. The 22 principal vegetable and melon crops had a total value of \$1,514 million in 1972, 11 percent more than a year earlier. Leading crops in value were lettuce, tomatoes, and onions, whose combined total accounted for 47 percent of the U.S. total. The five leading states were

California, Florida, Texas, Arizona and New York.

Sheep and Lambs, Goats: Revised Estimates, 1965-70. Statistical Reporting Service. Stat. Bull. 502.

This report continues and combines the official series on January 1 inventory of sheep and lambs on feed, and annual wool and mohair production previously shown in Statistical Bulletins 389, February 1967; 392, February 1967; and 387, January 1965.

Single copies of the publications listed here are available free from The Farm Index, Office of Management Services, U.S. Department of Agriculture, Washington, D.C. 20250. However, publications indicated by () may be obtained only by writing to the experiment station or university. For addresses, see the July and December issues of The Farm Index.*

World Monetary Conditions in Relation to Agricultural Trade. O. Halbert Goolsby, Amalia Vellianitis, and Joseph R. Barse, Foreign Demand and Competition Division. WMC-3.

The purpose of this report is to provide economic intelligence on international monetary and financial affairs for people concerned with promoting U.S. agricultural products. The five articles in the edition are: Survey of International Monetary Conditions; Financial Conditions in Selected Foreign Markets for U.S. Farm Commodities; U.S. Agriculture and the Balance of Payments; Japanese Yen Shows Further Strength; and Glossary of Exchange Concepts.

The Farmland Rental Market—A Case Analysis of Selected Corn Belt Areas. Bruce B. Johnson, Farm Production Economics Division, and Michigan State University. AER 235.*

Objectives of this study are to identify characteristics of participants in selected land rental markets in the Corn Belt; to analyze farmland rental process in terms of information flow, type and extent of competition, landlord-tenant bargaining, and security of tenancy.

Economic and Operational Characteristics of the Southern Beef Cattle Industry. Charles P. Butler, Farm Production Economics Division, in cooperation with South Carolina Agr. Expt. Sta. Southern Cooperative Series Bulletin 176.*

This is the first of a series of reports describing the beef cattle industry in the South. The purpose of this report is to present some of the statistical summaries developed from the regional survey of representative farms in selected subregions.

Interfacing the MPS-360 Linear Programming Routine With FORTRAN Programs. Roger P. Strickland Jr., Economic Research Service, and Jimmie D. Davis, Statistical Reporting Service. Unnumbered Report.

This study outlines the steps in a procedure enabling FORTRAN programs to be connected in series with the IBM/360 Mathematical Programming Systems (MPS) routine. MPS contains a linear programming (LP) algorithm.

Cattle Raising in the United States. Roy N. Van Arsdall and Melvin D. Skold, Farm Production Economics Division. AER 235.

Some 295 persons in government and industry contributed data for this study, outlining beef production trends and prospects. Among other findings, the study estimates the Nation's beef supply will reach 29 billion pounds in 1980—nearly a third more than in 1970 and matching anticipated needs. Key to increased supply will be more beef cows for more feeder calves. This report gives regional and State breakdowns of projected gains in the beef cow herd, and the reasons for expansion.

Food Dating: Shoppers' Reactions and the Impact on Retail Foodstores. Marketing Economics Division. MRR 984.

Shoppers interviewed at selected Ohio retail chainstores, before and after an 8-week experimental open-dating program, were asked about their satisfaction with foods purchased. The frequency with which shoppers reported instances of purchasing "bad" food was reduced by half after open (uncoded) dates and improved handling practices were introduced.

The Balance Sheet of the Farming Sector. Farm Production Economics Division. AIB 359.

The Balance Sheet of the Farming

Sector showed 1972 opened with farm assets valued at \$339.2 billion, a 7.7-percent gain from the \$314.9 billion of a year earlier. As in most years, two-thirds of farm assets were in real estate, which in 1971 increased a record \$15.6 billion and totaled \$228.6 billion on Jan. 1, 1972.

Economic Impact of Discontinuing Farm Uses of Heptachlor. Herman W. Delvo, Austin F. Fox, and Robert P. Jenkins, Farm Production Economics Division. ERS 509.

This study found that if farm use of the insecticide heptachlor were discontinued, the total cost to U.S. farmers in 1971 would have been \$2.1 million. Based on estimates of 1971

acreage treated with heptachlor, farmers would have incurred costs of \$1.2 million for alternative insecticides and \$0.9 million in yield losses.

Purchasing Alternatives for Investors in Cattle Fattening Enterprises. C. Kerry Gee, Colorado State University Experiment Station in cooperation with Farm Production Economics Division. Colo. State University Agr. Expt. Sta. GS 927.*

This bulletin contains an analysis of feeder cattle purchasing alternatives for individuals who invest in cattle for fattening on custom feed-lots. Heavy yearling steers weighing over 700 pounds yielded the highest rate of return during the study period.

Article Sources

Readers are invited to write for the complete reports, studies, speeches, or papers on which we base our articles. Authors and titles are listed below, preceded by numbers corresponding to those appearing at the end of stories in this issue. Those publications indicated by (*) are obtainable only from the university or experiment station cited. The word "manuscript" after an item denotes a forthcoming publication, which we will send you when it comes off press. "Special material" after an item means the article was researched specially for this magazine, although additional information is generally available. Address all inquiries to The Farm Index, Office of Management Services, U.S. Department of Agriculture, Room 1459, Washington, D.C. 20250.

1. C. Kyle Randall, chairman, Outlook and Situation Board; Benjamin R. Blankenship, Jr., secretary; and Outlook and Situation Board members (special material).
2. Benjamin R. Blankenship, Jr., secretary, Outlook and Situation Board (special material).
3. and 4. Virden L. Harrison, FPED. Tax Incentives and Consequences Inherent With Accounting Methods Allowed Farmers (manuscript).
5. and 6. George B. Rogers and Ruth J. Irvin, MED. "Changes of Location and Flock Size in Poultry Production," *Poultry and Egg Situation*, PES-274, November 1972.
7. John F. Gale, FPED. *Fertilizer Situation*, FS-3, December 1972.
8. Herman W. Delvo, FPED. "Herbicide Use on Corn and Soybeans in the North Central Region, 1972" (speech at 27th North Central Weed Control Conference, Winnipeg, Manitoba, December 5-7, 1972).
9. David E. Brewster, agricultural historian, ESAD (special material).
10. and 11. Frederick D. Gray, ESAD. "Spice Trends in the United States," *National Food Situation*, NFS-142, November 1972.
12. John O. Gerald, MED. "Agricultural Exports and the Freight Car Situation," *Marketing and Transportation Situation*, MTS-187, November 1972.
13. Robert C. Otte, Thomas Frey, John Fritschen, and Howard A. Osborn, NRED. Report on Land and Water Resources (manuscript).
14. Claude C. Haren, EDD (special material).
15. Thomas L. Sporleder and Robert E. Branson, Texas A&M University. *Retail Test Marketing and Consumer Evaluation of Frozen Lamb* (manuscript); also Wylie D. Goodsell, FPED (special material).
16. William G. Bursch, Purdue University, in cooperation with FPED. *Sow Leasing and Contract Hog Feeding: An Analysis of Producer Characteristics and Incentives** (manuscript).
17. George W. Kromer, ESAD. "U.S. Soybeans and Edible Oils in 1972/73" (speech at Institute of Shortening and Edible Oils, Inc., annual meeting, Williamsburg, Va., October 1972).
18. William S. Hoofnagle and Eileen F. Taylor, MED. *Food Dating: Shoppers' Reactions and the Impact on Retail Foodstores*, MRR-984.
19. Robert H. Miller, ESAD. *Tobacco Situation*, TS-142. December 1972.

NOTE: Unless otherwise indicated, authors are on the staff of the Economic Research Service (ERS) with their divisions designated as follows: Economic and Statistical Analysis Division (ESAD); Economic Development Division (EDD); Farm Production Economics Division (FPED); Foreign Demand and Competition Division (FDCD); Foreign Development Division (FDD); Marketing Economics Division (MED); and Natural Resource Economics Division (NRED).

Economic Trends

Item	Unit or Base Period	1967	1971		1972	
			Year	Nov.	Sept.	Oct.
Prices:						
Prices received by farmers	1967=100	—	112	115	128	129
Crops	1967=100	—	107	109	117	116
Livestock and products	1967=100	—	116	119	137	138
Prices paid, interest, taxes and wage rates	1967=100	—	120	122	128	129
Family living items	1967=100	—	119	120	126	125
Production items	1967=100	—	115	117	124	125
Ratio ¹	1967=100	—	94	94	100	100
Wholesale prices, all commodities	1967=100	—	113.9	114.5	120.2	120.0
Industrial commodities	1967=100	—	114.0	114.9	118.7	118.8
Farm products	1967=100	—	112.9	112.2	128.6	125.5
Processed foods and feeds	1967=100	—	114.3	114.4	121.8	121.8
Consumer price index, all items	1967=100	—	121.3	122.6	126.2	126.6
Food	1967=100	—	118.4	119.0	124.8	124.9
Farm Food Market Basket: ²						
Retail cost	Dollars	1,081	1,244	1,247	1,320	1,317
Farm value	Dollars	419	477	485	533	523
Farm-retail spread	Dollars	662	767	762	787	794
Farmers' share of retail cost	Percent	39	38	39	41	40
Farm Income: ³						
Volume of farm marketings	1967	100	111	162	118	162
Cash receipts from farm marketings	Million dollars	42,693	53,063	6,267	5,435	7,200
Crops	Million dollars	18,434	22,609	3,494	2,333	3,815
Livestock and products	Million dollars	24,259	30,454	2,773	3,102	3,385
Realized gross income ⁴	Billion dollars	49.0	60.1	—	66.1	—
Farm production expenses ⁴	Billion dollars	34.8	44.0	—	47.3	—
Realized net income ⁴	Billion dollars	14.2	16.1	—	18.8	—
Agricultural Trade:						
Agricultural exports	Million dollars	—	7,695	631	710	908
Agricultural imports	Million dollars	—	5,825	298	547	574
Land Values:						
Average value per acre	Dollars	6168	7201	—	—	8217
Total value of farm real estate	Billion dollars	6181.8	7213.0	—	—	8228.6
Gross National Product: ⁴						
Consumption	Billion dollars	793.9	1,050.4	—	1,164.0	—
Investment	Billion dollars	492.1	664.9	—	728.6	—
Government expenditures	Billion dollars	116.6	152.0	—	183.2	—
Net exports	Billion dollars	180.1	232.8	—	255.6	—
Billion dollars	5.2	.7	—	—3.6	—	—
Income and Spending: ⁵						
Personal income, annual rate	Billion dollars	629.3	861.4	879.4	946.8	963.8
Total retail sales, monthly rate	Million dollars	26,151	34,071	35,574	37,746	39,089
Retail sales of food group, monthly rate	Million dollars	5,759	7,437	7,474	8,005	8,230
Employment and Wages: ⁵						
Total civilian employment	Millions	74.4	79.1	80.0	982.2	982.5
Agricultural	Millions	3.8	3.4	3.4	93.6	93.7
Rate of unemployment	Percent	3.8	5.9	6.0	5.5	5.5
Workweek in manufacturing	Hours	40.6	39.9	40.2	41.0	40.8
Hourly earnings in manufacturing, unadjusted	Dollars	2.83	3.56	3.59	3.86	3.88
Industrial Production: ⁵						
Manufacturers' Shipments and Inventories:	1967 = 100	—	107	107	116	117
Total shipments, monthly rate	Million dollars	46,449	55,580	57,444	63,903	64,725
Total inventories, book value end of month	Million dollars	84,599	101,665	101,699	105,441	106,008
Total new orders, monthly rate	Million dollars	46,763	55,473	57,992	65,776	65,454

¹ Ratio of index of prices received by farmers to index of prices paid, interest, taxes, and farm wage rates. ² Average annual quantities of farm food products purchased by urban wage-earner and clerical worker households (including those of single workers living alone) in 1959-61—estimated monthly. ³ Annual and quarterly data are on 50-State basis. ⁴ Annual rates seasonally adjusted third quarter. ⁵ Seasonally adjusted. ⁶ As of March 1, 1967. ⁷ As of March 1, 1971. ⁸ As of March 1, 1972. ⁹ Beginning January 1972 data not strictly comparable with prior

data because of adjustment to 1970 Census data.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Monthly Retail Trade Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

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